

EXERCISE: 9-D

1) Divide:

a) $\frac{35}{40} \div 70$

Sol = $\frac{35}{40} \times \frac{1}{70} = \frac{35}{2800} = \frac{5}{400} = \frac{1}{80}$

b) $\frac{12}{13} \div 15$

Sol = $\frac{12}{13} \times \frac{1}{15} = \frac{4}{65}$

c) $\frac{8}{13} \div \frac{2}{13}$

Sol = $\frac{8}{13} \times \frac{13}{2} = \frac{104}{26} = 4$

d) $\frac{5}{12} \div \frac{10}{21}$

Sol = $\frac{5}{12} \times \frac{21}{10} = \frac{105}{120} = \frac{7}{8}$

e) $\frac{22}{25} \div \frac{11}{15}$

Sol = $\frac{22}{25} \times \frac{15}{11} = \frac{6}{5} = 1\frac{1}{5}$

f) $\frac{26}{27} \div \frac{13}{15}$

$$\begin{array}{r} 15 \overline{) 448} \\ \underline{315} \\ 133 \end{array}$$

Sol = $\frac{26}{27} \times \frac{15}{13} = \frac{10}{9} = 1\frac{1}{9}$

g) $\frac{45}{15} \div \frac{3}{8}$

Sol = $\frac{45}{1} \times \frac{8}{3} = 120$

h) $\frac{91}{7} \div \frac{26}{27}$

$$\begin{array}{r} 94 \\ 2 \overline{) 189} \\ \underline{18} \downarrow \\ 09 \\ \underline{8} \\ 1 \end{array}$$

Sol = $\frac{91}{1} \times \frac{27}{26} = \frac{189}{2} = 94\frac{1}{2}$

i) $12\frac{4}{15} \div 2\frac{1}{27} = \frac{64}{15} \div \frac{15}{7} = \frac{64}{15} \times \frac{7}{15}$

= $\frac{448}{75}$

Sol = $\frac{184}{15} \div \frac{27}{27}$

Sol = $\frac{184}{15} \div \frac{55}{27} = \frac{184}{15} \times \frac{27}{55}$

$\frac{1656}{275} = 6 \frac{6}{275}$

j) $\frac{3}{4} \div \frac{1}{2} \div \frac{6}{7}$

4) $\frac{1}{7}$
 $\frac{4}{7}$
 $\frac{3}{7}$

Sol = $\frac{3}{4} \times \frac{2}{1} \times \frac{7}{6} = \frac{7}{4} = 1 \frac{3}{4}$

k) $2 \frac{1}{4} \div 1 \frac{3}{10} \div \frac{3}{13}$

2) $\frac{7}{15}$
 $\frac{14}{15}$
 $\frac{1}{15}$

Sol = $\frac{9}{4} \div \frac{13}{10} \div \frac{3}{13}$

= $\frac{9}{4} \times \frac{10}{13} \times \frac{13}{3} = \frac{15}{2} = 7 \frac{1}{2}$

l) $4 \frac{2}{3} \div 1 \frac{1}{2} \div 1 \frac{2}{3}$

$$\text{Sol} = \frac{14}{3} \div \frac{3}{2} \div \frac{5}{3}$$

$$= \frac{14}{3} \times \frac{2}{3} \times \frac{3}{5} = \frac{28}{15} = 1 \frac{13}{15}$$

$$\begin{array}{r} 1 \\ 15 \overline{) 28} \\ \underline{15} \\ 13 \end{array}$$

2) Find the quotient in its simplest form

a) $\frac{\frac{3}{5}}{\frac{7}{10}}$

$$\text{Sol} = \frac{3}{5} \div \frac{7}{10} = \frac{3}{5} \times \frac{10}{7} = \frac{6}{7}$$

b) $\frac{5}{16} \div \frac{9}{14} = \frac{5}{16} \times \frac{14}{9} = \frac{35}{72}$

c) $\frac{8}{15} \div \frac{35}{36} = \frac{8}{15} \times \frac{36}{35} = \frac{96}{175}$

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$$d) \frac{12}{\frac{17}{5}} = \frac{12}{17} \div \frac{1}{5} = \frac{12}{17} \times \frac{1}{5} = \frac{12}{85}$$

$$e) \frac{8}{\frac{6}{7}} = \frac{8}{6} \div \frac{1}{7} = \frac{48}{36} \times \frac{1}{7} = \frac{8}{42} = \frac{4}{21}$$

$$f) \frac{2}{\frac{19}{4}} = \frac{2}{19} \div \frac{1}{4} = \frac{2}{19} \times \frac{1}{4} = \frac{1}{38}$$

$$g) \frac{7}{\frac{9}{28}} = \frac{7}{9} \div \frac{1}{28} = \frac{7}{9} \times \frac{1}{28} = \frac{1}{36}$$

$$h) \frac{5}{\frac{3}{10}} = \frac{5}{3} \div \frac{1}{10} = \frac{5}{3} \times \frac{1}{10} = \frac{1}{6}$$

$$i) \frac{20}{\frac{7}{15}} = \frac{20}{1} \div \frac{1}{15} = \frac{20}{1} \times \frac{15}{1} = 300$$
$$= 42 \frac{6}{7}$$

$$j) \frac{10}{3\frac{2}{3}} = \frac{10}{1} \div \frac{5}{3} = \frac{10}{1} \times \frac{3}{5} = \frac{6}{1} = 6$$

$$k) \frac{24}{3\frac{1}{3}} = \frac{24}{1} \div \frac{10}{3} = \frac{24}{1} \times \frac{3}{10} = \frac{36}{5} = 7\frac{1}{5}$$

$$l) \frac{3\frac{3}{4}}{1\frac{1}{2}} = \frac{15}{4} \div \frac{3}{2} = \frac{15}{4} \times \frac{2}{3} = \frac{10}{4} = \frac{5}{2} = 2\frac{1}{2}$$